



SEQUENCE LISTING

<110> Sette, Alessandro
Gaeta, Federico
Grey, Howard M.
Sidney, John
Alexander, Jeffery L.
Epimmune Inc.

<120> Induction of Immune Response Against
Desired Determinants

<130> 018623-006250US

<140> US 09/707,738

<141> 2000-11-06

<150> US 08/121,101

<151> 1993-09-14

<150> US 08/305,871

<151> 1994-09-14

<150> US 08/485,218

<151> 1995-06-07

<150> US 60/010,510

<151> 1996-01-24

<150> US 08/788,822

<151> 1997-01-23

<150> US 09/310,462

<151> 1999-05-12

<160> 27

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> HA 307-319

<400> 1

Pro	Lys	Tyr	Val	Lys	Gln	Asn	Thr	Leu	Lys	Leu	Ala	Thr
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<210> 2

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<212> PRT

<213> Artificial Sequence

<220>

<223> MBP 78-101

<400> 2
 Gly Arg Thr Gln Asp Glu Asn Pro Val Trp His Phe Phe Lys Asn Ile
 1 5 10 15
 Val Thr Pro Arg Thr Pro Pro Pro
 20

<210> 3
 <211> 12
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<220>
 <223> MT 65 kd 3-13

<400> 3
 Tyr Lys Thr Ile Ala Phe Asp Glu Glu Ala Arg Arg
 1 5 10

<210> 4
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<220>
 <223> 717.01 combinatorial

<400> 4
 Tyr Ala Arg Phe Gln Ser Gln Thr Thr Leu Lys Gln Lys Thr
 1 5 10

<210> 5
 <211> 14
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<220>
 <223> Tet Tox 830-843, T-helper epitope from tetanus
 toxin p2, peptide 553.01

<400> 5
 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
 1 5 10

<210> 6
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<220>
 <223> Tet Tox 1272-1284

<400> 6
 Asn Gly Gln Ile Gly Asn Asp Pro Asn Arg Asp Ile Leu
 1 5 10

<210> 7
 <211> 17
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<220>

<223> ROIV

<400> 7

Tyr	Ala	His	Ala	Ala	His	Ala	Ala	His	Ala	Ala	His	Ala	Ala	His	Ala
1				5					10					15	
Ala															

<210> 8

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<213> Artificial Sequence

<220>

<223> Ova 323-326

<400> 8

Ile	Ser	Gln	Ala	Val	His	Ala	Ala	His	Ala	Glu	Ile	Asn	Glu
1				5					10				

<210> 9

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<212> PRT

<213> Artificial Sequence

<220>

<223> lambda rep 12-26

<400> 9

Tyr	Leu	Glu	Asp	Ala	Arg	Arg	Leu	Lys	Ala	Ile	Tyr	Glu	Lys	Lys	Lys
1				5					10					15	

<210> 10

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> HEL 46-61

<400> 10

Tyr	Asn	Thr	Asp	Gly	Ser	Thr	Asp	Tyr	Gly	Ile	Leu	Gln	Ile	Asn	Ser
1				5					10					15	
Arg															

<210> 11

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Trp at position X6

<400> 11

Ala	Lys	Phe	Val	Ala	Ala	Trp	Thr	Leu	Lys	Ala	Ala	Ala
1				5					10			

<210> 12
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<220>
 <223> all-natural analog of pan DR binding peptide
 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Asn at position X6

<400> 12
 Ala Lys Phe Val Ala Ala Asn Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 13
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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Tyr at position X6

<400> 13
 Ala Lys Phe Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 14
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<220>
 <223> all-natural analog of pan DR binding peptide
 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Lys at position X6

<400> 14
 Ala Lys Phe Val Ala Ala Lys Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 15
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 <223> all-natural analog of pan DR binding peptide
 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and His at position X6

<400> 15
 Ala Lys Phe Val Ala Ala His Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 16
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 <212> PRT
 <213> Artificial Sequence

<220>

<223> all-natural analog of pan DR binding peptide
965.10 with substitutions L-Ala for D-Ala, Phe at
position X2 and Ala at position X6

<400> 16

Ala Lys Phe Val Ala Ala Ala Thr Leu Lys Ala Ala Ala
1 5 10

<210> 17

<211> 25

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<213> Artificial Sequence

<220>

<223> central immunodominant circumsporozoite repeat
region of circumsporozoite protein (CSP) of
Plasmodium yoelii (PyB)

<400> 17

Gly Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro Gln Gly Pro
1 5 10 15
Gly Ala Pro Gln Gly Pro Gly Ala Pro
20 25

<210> 18

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> central immunodominant circumsporozoite repeat
region of circumsporozoite protein (CSP) of
Plasmodium falciparum (PfB)

<400> 18

Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
1 5 10 15

<210> 19

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> protective B-cell epitope tandem repeat from the
PyB CSP

<400> 19

Gln Gly Pro Gly Ala Pro
1 5

<210> 20

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> universal T-helper epitope from tetanus toxin p30

<400> 20
Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
1 5 10 15
Ala Ser His Leu Glu
20

<210> 21
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<212> PRT
<213> Artificial Sequence

<220>
<223> PyCS.1 Plasmodium falciparum B-epitope

<400> 21
Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro
1 5 10

<210> 22
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<212> PRT
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<220>
<223> peptide 965.17

<220>
<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine

<220>
<221> MOD_RES
<222> (13)...(13)
<223> Xaa = alaninamide

<400> 22
Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Xaa
1 5 10

<210> 23
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide binds more than one DR allele

<220>
<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<220>
<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<220>
 <221> MOD_RES
 <222> (3)...(3)
 <223> Xaa = cyclohexylalanine, Tyr or Phe

<220>
 <221> MOD_RES
 <222> (4)...(6)
 <223> Xaa = Ala, Ile, Ser or Val

<220>
 <221> MOD_RES
 <222> (11)...(12)
 <223> Xaa = Ala, Ser or Val

<220>
 <221> MOD_RES
 <222> (13)...(13)
 <223> Xaa = any D- or L-amino acid

<400> 23
 Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa
 1 5 10

<210> 24
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> peptide binds more than one DR allele

<220>
 <221> MOD_RES
 <222> (1)...(1)
 <223> Xaa = any D- or L-amino acid

<220>
 <221> MOD_RES
 <222> (2)...(2)
 <223> Xaa = Ala or Lys

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 <221> MOD_RES
 <222> (3)...(3)
 <223> Xaa = cyclohexylalanine, Tyr or Phe

<220>
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 <222> (4)...(6)
 <223> Xaa = Ala, Ile, Ser or Val

<220>
 <221> MOD_RES
 <222> (11)...(13)
 <223> Xaa = Ala, Ser or Val

<220>
 <221> MOD_RES
 <222> (14)...(14)
 <223> Xaa = any D- or L-amino acid

<400> 24
 Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa Xaa
 1 5 10

<210> 25
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<220>
 <223> peptide binds more than one DR allele

<220>
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<220>
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 <222> (2)...(2)
 <223> Xaa = Ala or Lys

<220>
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 <222> (3)...(3)
 <223> Xaa = cyclohexylalanine, Tyr or Phe

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 <222> (4)...(6)
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 <222> (11)...(14)
 <223> Xaa = Ala, Ser or Val

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 <222> (15)...(15)
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<400> 25
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 1 5 10 15

<210> 26
 <211> 16
 <212> PRT
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<220>
 <223> peptide binds more than one DR allele

<220>
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 <222> (1)...(1)
 <223> Xaa = any D- or L-amino acid

<220>
 <221> MOD_RES
 <222> (2)...(2)
 <223> Xaa = Ala or Lys

<220>
 <221> MOD_RES
 <222> (3)...(3)
 <223> Xaa = cyclohexylalanine, Tyr or Phe

<220>
 <221> MOD_RES
 <222> (4)...(6)
 <223> Xaa = Ala, Ile, Ser or Val

<220>
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 <222> (7)...(7)
 <223> Xaa = Ala, Ile, Ser or Val, Xaa at position 7 may
 be present or absent

<220>
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 <222> (12)...(13)
 <223> Xaa = Ala, Ser or Val

<220>
 <221> MOD_RES
 <222> (14)...(15)
 <223> Xaa = Ala, Ser or Val, Xaa at positions 14 and 15
 may be present or absent

<220>
 <221> MOD_RES
 <222> (16)...(16)
 <223> Xaa = any D- or L-amino acid

<400> 26
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 1 5 10 15

<210> 27
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> pan DR binding peptide binding core

<400> 27
 Trp Thr Leu Lys
 1